CLAIMS

What is claimed is:

1. In a software development environment, a method for deploying version control system server software having a remote access capability, said method comprising:

providing a functional software unit implementing version control system server functionality;

providing a module deployment descriptor for directing a deployment tool to deploy the module;

packaging the functional software unit with the module deployment descriptor into a Web module for deployment in accordance with a component-based platform-independent specification; and

deploying the Web module onto a Web server platform using the deployment tool of the software development environment, the Web server platform including a machine, an operation system, and hosting server software, the deployment tool including a server plug-in provided by a provider of the hosting server software, the server plug-in automatically installing a Web module on a corresponding server platform when the Web module complies with the component-based platform-independent specification.

2. A method according to claim 1 wherein the functional software unit includes a program of instructions for generating dynamic content and interacting with clients using a request-response scheme.

3. A method according to claim 1 wherein the functional software unit includes a program of instructions for returning the dynamic content to the clients using template data, custom elements, scripting languages, and server-side objects.

4. A method according to claim 1 wherein the remote access capability employs a hyper text transport type protocol.

5. A method according to claim 1 wherein said deploying comprises:

selecting, in response to a user's input, a server platform having a corresponding server plug-in; and

calling the corresponding server plug-in for the selected server platform.

6. A method according to claim 1 wherein the component-based platform-independent specification includes a component-based platform independent specification employing a multi-tier, thin-client application model.

7. A method according to claim 1 wherein the computer program development environment software includes an integrated development environment with deployment capability.

8. In a software development environment, a method for deploying version control system server software having a remote access capability, said method comprising:

providing a module for the version control system server software, the module comprising:

a functional software unit implementing version control system server functionality; and

a module deployment descriptor for directing a deployment tool to deploy the module;

packaging the module with an application deployment descriptor into application-level software for deployment in accordance with a component-based platform-independent specification, the application deployment descriptor directing the deployment tool to deploy the application-level software; and

deploying the application-level software onto a server platform using the deployment tool of the software development environment, the server platform including a machine, operating system, and hosting server software, the deployment tool including a server plug-in provided by a provider of the hosting server software, the server plug-in automatically installing application-level software on the corresponding server platform if the application-level software complies with the component-based platform-independent specification.

9. A method according to claim 8 wherein the functional software unit includes a program of instructions for generating dynamic content and interacting with clients using a request-response scheme.

10. A method according to claim 8 wherein the functional software unit includes a program of instructions for returning the dynamic content to the clients using template data, custom elements, scripting languages, and server-side objects.

11. A method according to claim 8 wherein the functional software unit includes a program of instructions capable of being called and executed remotely using servlet mechanism or web services.

12. A method according to claim 8 wherein the remote access capability employs a hyper text transport type of protocol.

13. A method according to claim 8 wherein said deploying comprises:

selecting, in response to a user's input, a server platform having a corresponding server plug-in; and

calling the corresponding server plug-in for the selected server platform.

14. A method according to claim 8 wherein the component-based platform-independent specification includes a component-based platform independent specification employing a multi-tier, thin-client application model.

15. A method according to claim 8 wherein the computer program development environment software includes an integrated development environment with deployment capability.

16. A method for providing a version control system having a remote access capability for a computer program development environment, the computer program development environment including a client tier and a server tier, said method comprising:

installing the computer program development environment software on a server, the computer program development environment software having a deployment tool including a server plug-in for a server platform, the server plug-in being provided by a provider of server software for the server platform, the server platform complying with a component-based platform independent specification;

packaging version control system server software for deployment in accordance with the component-based platform-independent specification, the packaged version control system server software including at least one module, the module comprising:

a functional software unit implementing version control system server functionality; and

a module deployment descriptor for directing the deployment tool to deploy the module;

starting the computer program development environment software with the packaged version control system server software;

selecting, in response to a user's input, a server platform having a corresponding server plug-in; and

deploying the packaged version control system server software onto the selected server platform using the deployment tool, the corresponding server plug-in

automatically installing the packaged version control server software onto the selected server platform.

17. A method according to claim 16 wherein the server platform includes an operating system and hosting server software.

18. A method according to claim 16 wherein said packaging comprises:

packaging the version control system server software as a Web module for deployment on a Web server platform.

19. A method according to claim 18 wherein the functional software unit includes a program of instructions for generating dynamic content and interacting with clients using a request-response scheme.

20. A method according to claim 18 wherein the functional software unit includes a program of instructions for returning the dynamic content to the clients using template data, custom elements, scripting languages, and server-side objects.

21. A method according to claim 16 wherein said packaging comprises:

packaging the version control system server software as an application-level software with an application deployment descriptor for deployment on an application server platform, the application deployment descriptor directing a deployment tool to deploy the application-level software.

22. A method according to claim 21 wherein the functional software unit includes a program of instructions for generating dynamic content and interacting with clients using a request-response scheme.

23. A method according to claim 21 wherein the functional software unit includes a program of instructions for returning the dynamic content to the clients using template data, custom elements, scripting languages, and server-side objects.

24. A method according to claim 21 wherein the functional software unit includes a program of instructions capable of being called and executed remotely using a remote procedure call.

25. A method according to claim 16 wherein said deploying comprises:

selecting, in response to a user's input, a server platform having a corresponding server plug-in; and

calling the corresponding server plug-in for the selected server platform.

26. A method according to claim 16, further comprising:

starting the version control system software at the server; and

configuring the version control system server software deployed on the server platform, if required.

27. A method according to claim 26, further comprising:

starting the version control system software at the client; and

accessing from the client the version control system server.

28. A method according to claim 16 wherein the component-based platform-independent specification includes a component-based platform independent specification employing a multi-tier, thin-client application model.

29. A method according to claim 16 wherein the computer program development environment software includes an integrated development environment with deployment capability.

30. In a software development environment, an apparatus for deploying version control system server software having a remote access capability, said apparatus comprising:

means for providing a functional software unit implementing version control system server functionality;

means for providing a module deployment descriptor for directing a deployment tool to deploy the module;

means for packaging the functional software unit with the module deployment descriptor into a Web module for deployment in accordance with a component-based platform-independent specification; and

means for deploying the Web module onto a Web server platform using the deployment tool of the software development environment, the Web server platform including a machine, an operation system, and a hosting server software, the deployment tool including a server plug-in provided by a provider of the hosting server software, the server plug-in automatically installing a Web module on a corresponding server platform when the Web module complies with the component-based platform-independent specification.

31. An apparatus according to claim 30 wherein the functional software unit includes a program of instructions for generating dynamic content and interacting with clients using a request-response scheme.

32. An apparatus according to claim 30 wherein the functional software unit includes a program of instructions for returning the dynamic content to the clients using template data, custom elements, scripting languages, and server-side objects.

33. An apparatus according to claim 30 wherein the remote access capability employs a hyper text transport type protocol.

34. An apparatus according to claim 30 wherein said means for deploying comprises:

means for selecting, in response to a user's input, a server platform having a corresponding server plug-in; and

means for calling the corresponding server plug-in for the selected server platform.

35. An apparatus according to claim 30 wherein the component-based platform-independent specification includes a component-based platform independent specification employing a multi-tier, thin-client application model.

36. An apparatus according to claim 30 wherein the computer program development environment software includes an integrated development environment with deployment capability.

37. In a software development environment, an apparatus for deploying version control system server software having a remote access capability, said apparatus comprising:

means for providing a module for the version control system server software, the module comprising:

a functional software unit implementing version control system server functionality; and

a module deployment descriptor for directing a deployment tool to deploy the module;

means for packaging the module with an application deployment descriptor into application-level software for deployment in accordance with a component-based

platform-independent specification, the application deployment descriptor directing the deployment tool to deploy the application-level software; and

means for deploying the application-level software onto a server platform using the deployment tool of the software development environment, the server platform including a machine, operating system, and hosting server software, the deployment tool including a server plug-in provided by a provider of the hosting server software, the server plug-in automatically installing application-level software on the corresponding server platform if the application-level software complies with the component-based platform-independent specification.

38. An apparatus according to claim 37 wherein the functional software unit includes a program of instructions for generating dynamic content and interacting with clients using a request-response scheme.

39. A method according to claim 37 wherein the functional software unit includes a program of instructions for returning the dynamic content to the clients using template data, custom elements, scripting languages, and server-side objects.

40. A method according to claim 37 wherein the functional software unit includes a program of instructions capable of being called and executed remotely using servlet mechanism or web services.

41. An apparatus according to claim 37 wherein the remote access capability employs a hyper text transport type of protocol.

42. An apparatus according to claim 37 wherein said means for deploying comprises:

means for selecting, in response to a user's input, a server platform having a corresponding server plug-in; and

means for calling the corresponding server plug-in for the selected server platform.

43. An apparatus according to claim 37 wherein the component-based platform-independent specification includes a component-based platform independent specification employing a multi-tier, thin-client application model.

44. An apparatus according to claim 37 wherein the computer program development environment software includes an integrated development environment with deployment capability.

45. An apparatus for providing a version control system having a remote access capability for a computer program development environment, the computer program development environment including a client tier and a server tier, said apparatus comprising:

means for installing the computer program development environment software on a server, the computer program development environment software having a deployment

tool including a server plug-in for a server platform, the server plug-in being provided by a provider of server software for the server platform, the server platform complying with a component-based platform independent specification;

means for packaging version control system server software for deployment in accordance with the component-based platform-independent specification, the packaged version control system server software including at least one module, the module comprising:

a functional software unit implementing version control system server functionality; and

a module deployment descriptor for directing the deployment tool to deploy the module;

means for starting the computer program development environment software with the packaged version control system server software;

means for selecting, in response to a user's input, a server platform having a corresponding server plug-in; and

means for deploying the packaged version control system server software onto the selected server platform using the deployment tool, the corresponding server plug-in automatically installing the packaged version control server software onto the selected server platform.

46. An apparatus according to claim 45 wherein the server platform includes an operating system and hosting server software.

47. An apparatus according to claim 45 wherein said means for packaging comprises:

means for packaging the version control system server software as a Web module for deployment on a Web server platform.

48. An apparatus according to claim 47 wherein the functional software unit includes a program of instructions for generating dynamic content and interacting with clients using a request-response scheme.

49. An apparatus according to claim 47 wherein the functional software unit includes a program of instructions for returning the dynamic content to the clients using template data, custom elements, scripting languages, and server-side objects.

50. An apparatus according to claim 45 wherein said means for packaging comprises:

means for packaging the version control system server software as an application-level software with an application deployment descriptor for deployment to an application server platform, the application deployment descriptor directing the deployment tool to deploy the application-level software.

51. An apparatus according to claim 50 wherein the functional software unit includes a program of instructions for generating dynamic content and interacting with clients using a request-response scheme.

52. An apparatus according to claim 50 wherein the functional software unit includes a program of instructions for returning the dynamic content to the clients using template data, custom elements, scripting languages, and server-side objects.

53. An apparatus according to claim 50 wherein the functional software unit includes a program of instructions capable of being called and executed remotely using servlet mechanism or web services.

54. An apparatus according to claim 45 wherein said means for deploying comprises:

means for selecting, in response to a user's input, a server platform having a corresponding server plug-in; and

means for calling the corresponding server plug-in for the selected server platform.

55. An apparatus method according to claim 45, further comprising:

means for starting the version control system software at the server; and

means for configuring the version control system server software deployed to the server platform, if required.

56. An apparatus according to claim 55, further comprising:

means for starting the version control system software at the client; and

means for accessing from the client the version control system server.

57. An apparatus according to claim 45 wherein the component-based platform-independent specification includes a component-based platform independent specification employing a multi-tier, thin-client application model.

58. An apparatus according to claim 45 wherein the computer program development environment software includes an integrated development environment with deployment capability.

59. A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform, in a software development environment, a method for deploying version control system server software having a remote access capability, said method comprising:

providing a functional software unit implementing version control system server functionality;

providing a module deployment descriptor for directing a deployment tool to deploy the module;

packaging the functional software unit with the module deployment descriptor into a Web module for deployment in accordance with a component-based platform-independent specification; and

deploying the Web module onto a Web server platform using the deployment tool of the software development environment, the Web server platform including a machine, an operation system, and a hosting server software, the deployment tool including a server plug-in provided by a provider of the hosting server software, the server plug-in

automatically installing a Web module on a corresponding server platform when the Web module complies with the component-based platform-independent specification.

60. A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform, in a software development environment, a method for deploying version control system server software having a remote access capability, said method comprising:

providing a module for the version control system server software, the module comprising:

a functional software unit implementing version control system server functionality; and

a module deployment descriptor for directing a deployment tool to deploy the module;

packaging the module with an application deployment descriptor into application-level software for deployment in accordance with a component-based platform-independent specification, the application deployment descriptor directing the deployment tool to deploy the application-level software; and

deploying the application-level software onto a server platform using the deployment tool of the software development environment, the server platform including a machine, operating system, and hosting server software, the deployment tool including a server plug-in provided by a provider of the hosting server software, the server plug-in automatically installing application-level software on the corresponding server platform

if the application-level software complies with the component-based platform-independent specification.

61. A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform a method for providing a version control system having a remote access capability for a computer program development environment, the computer program development environment including a client tier and a server tier, said method comprising:

installing the computer program development environment software on a server, the computer program development environment software having a deployment tool including a server plug-in for a server platform, the server plug-in being provided by a provider of server software for the server platform, the server platform complying with a component-based platform independent specification;

packaging version control system server software for deployment in accordance with the component-based platform-independent specification, the packaged version control system server software including at least one module, the module comprising:

a functional software unit implementing version control system server functionality; and

a module deployment descriptor for directing the deployment tool to deploy the module;

starting the computer program development environment software with the packaged version control system server software;

selecting, in response to a user's input, a server platform having a corresponding server plug-in; and

deploying the packaged version control system server software onto the selected server platform using the deployment tool, the corresponding server plug-in automatically installing the packaged version control server software onto the selected server platform.